OCTOBER 2002

JACKSONVILLE HARBOR GRR
DUVAL COUNTY, FLORIDA

ENVIRONMENTAL ASSESSMENT

US Army Corps
of Engineers
Jacksonville District
South Atlantic Division

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
P. O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019

REPLY TO
ATTENTION OF

JACKSONVILLE HARBOR GRR
DUVAL COUNTY, FLORIDA
FINDING OF NO SIGNIFICANT IMPACT (FONSI)

I have reviewed the planning document and the Environmental Assessment (EA) for the proposed action. This Finding incorporates by reference all discussion and conclusions contained in the Environmental Assessment enclosed hereto. Based on information analyzed in the EA, reflecting pertinent information obtained from agencies having jurisdiction by law and/or special expertise, I conclude that the proposed action will not significantly impact the quality of the human environment and does not require an Environmental Impact Statement. Reasons for this conclusion are in summary:

1. There would be no significant impact on threatened or endangered species.

2. State water quality standards would be met.

3. Measures to eliminate, reduce or avoid potential adverse impacts to fish and wildlife resources would be implemented during project construction.

4. The proposed navigation improvements would assist in the continued functional capability of the Federal navigation project at Jacksonville Harbor and would protect human resources in that area.

5. Pending completion of coordination with the State Historic Preservation Officer the project will be in compliance with appropriate historic preservation laws.

In consideration of the information summarized, I find that the proposed action will not significantly affect the human environment and does not require an Environmental Impact Statement.

15 OCT 02
Date

James G. May
Colonel, U.S. Army
District Engineer

ENVIRONMENTAL ASSESSMENT
JACKSONVILLE HARBOR GRR
DUVAL COUNTY, FLORIDA

1.0. Project Purpose: The purpose of the proposed action is to provide increased safety, efficiency and lower costs for navigation, while protecting the environment in Jacksonville Harbor. Existing port facilities are not easily accessible to some larger ships, which must await favorable tidal conditions, because of depth limitations in parts of the channel, and other large ships that can only use the channel if they are "light-loaded", also because of depth limitations. Local interests have requested that the harbor channels be deepened to provide for existing and projected movement of bulk petroleum products at greater drafts, thereby reducing transportation costs. In addition, local interests and harbor pilots have requested consideration of channel wideners at key locations where turning and/or passing is required, to improve vessel handling and maneuvering and to ensure safety of navigation while in the harbor.

1.1. Authorization The Jacksonville Harbor Deepening Study was authorized by a resolution from the Committee on Public Works and Transportation, U.S. House of Representatives, dated February 5, 1992, which states:

"Resolved by the Committee on Public Works and Transportation of the United States House of Representatives, That the Board of Engineers for Rivers and Harbors, is requested to review the report of the Chief of Engineers on Jacksonville Harbor, Florida, published as House Document 214, Eighty-ninth Congress, First Session, and other pertinent reports, to determine whether modifications of the recommendations contained therein are advisable at the present time, in the interest of navigation and other purposes."

1.2. Congress added funding in the appropriations for Fiscal Year 1993 to initiate the study. Authorization of the Final Feasibility Report and Environmental Impact Statement authorization in the Water Resources Development Act (WRDA) of 1999 and receipt of Preconstruction Engineering and Design (PED) funds enabled the continuation of the study process to determine the feasibility of extending the 40-foot project depth from mile 14.7 to mile 20. Review of the GRR approach with South Atlantic Division occurred in July 2000.

1.3. Introduction The Jacksonville Port Authority (JPA) requested the U.S. Army Corps of Engineers (Corps), Jacksonville District, to reevaluate the feasibility of extending the recently authorized, figure 1, 40-foot depth for the main channel of Jacksonville Harbor. The area of study extends from river about mile 14.7 to 20 identified as the previous study segment 3A, which extends to mile 20 as shown on figure 2. The Water Resources Development Act (WRDA) of 1999 authorized deepening of the main channel from a project depth of 38 to 40 feet from the

entrance channel to about mile 14.7 shown on figure 1 as the recommended plan.

1.4. Prior Study Economic Analysis. During the earlier study segment 3A was not economically justified and was dropped from further consideration. Since that time conditions have changed concerning petroleum bulk movements in that segment as well as changes in ownership and expansion of petroleum terminals. A new container ship company has also initiated service to the JPA Talleyrand docks and terminal. A reevaluation of benefits has resulted in new information.

1.5. Prior Study Alternatives. In the prior study which lead to the 40-foot main channel authorization in WRDA of 1999, three different plans A, B, and C received consideration at depths of 39 to 45 feet. For this reevaluation only project depths of 39 – 40 feet received consideration using the recommended plan A3 from the previous study and the existing channel width. Plan A3 as shown in figure 1 follows the existing channel alignment, but decreases the bottom width of the existing channel. The newly authorized channel bottom widths of plan A3 vary from 375 feet to 950 feet or reduce existing main channel bottom widths from 25 to 350 feet, which currently range from 400 to 1,200 feet. In addition to the narrower bottom width of plan A3, widening features between river miles 14.7 and 20, shown in figure 3, were initially considered, but later eliminated from further consideration due to benefit and cost considerations.

1.6. Preferred Plan 3A. At the present time the preferred plan is an extension of the previously authorized plan shown on figure 1 from mile 14.7 to about mile 20, but with the existing instead of a narrowed bottom width. Project depths extend from an existing depth of 38 feet to a new 40-foot project depth over the 5.3 mile segment. A turn widener is added at the Chaseville Turn as shown in figures 3 and 4. Placement of all dredged material from the deepening is planned for the West Bartram Island confined upland disposal area shown in figure 1. Rock material could also go to the Mile Point shoreline or one of the proposed artificial reef locations shown in figure 6 and identified in the earlier study. The ODMDS would only be used if the above sites cannot be used.

1.7. Blasting Considerations. It has been determined that blasting would not be required in order to implement the preferred plan.

1.8. Advance Maintenance Considerations. Advance maintenance considerations include sediment traps or advanced maintenance zones within the existing channel bottom widths over the preferred plan from about mile 14.7 to 20.

1.9. Related Environmental Documents. All the plan alternatives and disposal options listed above received consideration in the Final Environmental Impact Statement (EIS) dated September 1998 for Navigation Channel Improvements, Jacksonville Harbor. A copy of the EIS is available on our web site at

http://www.saj.usace.army.mil/pd/envdocs/envdocsb.htm. A copy of the USFWS Coordination Act Report (CAR) dated July 1997 is also available at http://www.saj.usace.army.mil/pd/envdocs/JaxHbr/car.html

2.0. Alternatives. Four alternatives, Plans 3A1 and 3A2 at a 39-foot and 40-foot project depth received consideration as outlined below.

2.1. Plan 3A1 involves extending the previously authorized plan shown on Figure 1 from mile 14.7 to about mile 18 as shown in figures 2 and 3. Plan 3A1 uses the existing bottom width of the 38-foot project. A widener is added at the Chaseville Turn or the eastside of the channel from Cuts 51 – 54 as shown in figures 3 and 4.

2.2. Plan 3A1 (39-foot Project Depth). All material would be taken to Bartram Island, Mile Point Shoreline, the ODMDS or to an artificial reef site.

2.3. Plan 3A1 (40-foot Project Depth). All material would be taken to Bartram Island, Mile Point Shoreline, the ODMDS or an artificial reef site.

2.4 Plan 3A2 extends from about river mile 18 to 20. Plan 3A2 also uses the existing bottom width of the 38-footproject. A turning basin is added at the north end of Terminal Channel as shown in figures 3 and 5.

2.5 Plan 3A2 (39-foot Project Depth). All material would be taken to Bartram Island, Mile Point Shoreline, the ODMDS or an artificial reef site.

2.6 Plan 3A2 (40-foot Project Depth) All material would be taken to Bartram Island, Mile Point Shoreline, the ODMDS or an artificial reef site.

2.7. Plan 3A (Plan 3A = 3A1 + 3A2 or Preferred Plan at a 40-foot Project Depth). At the present time, the preferred plan is Plan 3A, which combines elements of plans 3A1 and 3A2. That plan calls for dredging of the existing main channel from mile 14.7 to about mile 20 or Cut 50 to Terminal Channel Station 65+00. The plan includes a widener at the Chaseville Turn. Project depth would be to 40'. About 1,533,000 cubic yards (cy) of material will be removed from the 5.3 mile segment along with 5000 cy from the S.T. Services berthing area, 43,000 cy from the U.S. Navy Fuel Depot, 39,000 cy from the Chevron Oil Terminal, and 38,000 from JPA Talleyrand. Total estimated quantities include approximately 1,658,000 cy. This plan does not require blasting. The dredged material would be disposed of at the existing upland confined disposal facility (DA-Q1) located on the west end of Bartram Island. If for any reason the primary disposal site was not available other disposal sites could be used. Rock material dredged from the main channel could be placed along Mile Point shoreline or offshore as artificial reef material. Rock and non-rock material could also be placed on an existing upland disposal area on the east end of Bartram Island. Replacement of the existing advance maintenance template would be excavated from within the

existing channel. Material dredged from the advanced maintenance zones would be placed in the existing west Bartram Island upland disposal site. The Ocean Dredged Material Disposal Site (ODMDS) would only be used if the above methods are not suitable.

2.8. Berthing and Access Channels. Berthing and access channels to the S.T. Services, the U.S. Navy Fuel Depot, Chevron Oil Terminal, and the JPA Talleyrand Terminal docks would be deepened to the corresponding 40-foot project depth plus 2 feet allowable overdepth.

a. S.T. Services Berths – 5,000 cubic yards (Plan 3A1)
b. U.S. Navy Fuel Depot – 43,000 cubic yards (Plan 3A1)
c. Chevron Oil Terminal – 39,000 cubic yards (Plan 3A2)
d. JPA Talleyrand Terminal – 38,000 cubic yards (Plan 3A2)

2.9. Disposal Sites. Material dredged during this project would be placed in the existing upland confined disposal facility (D/A-Q1) on the west end of Bartram Island (figure 2), the primary disposal site. If for some reason that site is unavailable, other potential disposal sites include the east end of Bartram Island, one of the proposed artificial reef sites shown on Figure 4 or the Mile Point shoreline. The ODMDS would be used only if the other sites were not available.

2.10. Bartram Island. Bartram Island is owned by the Jacksonville Port Authority. The Port Authority raised the west end dikes or disposal area 1 (D/A-Q1)10 feet in 1998 to enlarge the island by increasing its capacity to hold dredged material by an additional 6.5 million cubic yards.

2.11. Artificial Reef Sites. One of the three potential artificial reef sites shown on Figure 6 could be selected and permitted to receive rock material if the primary disposal site is not available.

2.12. Ocean Dredged Material Disposal Site (ODMDS). The ODMDS is the current EPA-approved site. Sediment testing (Appendix D of the Final EIS entitled Final Report for Jacksonville Harbor – 1997 Evaluation of Dredged Material for Ocean Disposal) indicates that the material from the proposed project area is generally acceptable for offshore disposal.

3.0. Existing Conditions. Residential, industrial and commercial properties increase in frequency along this segment. Numerous commercial and Federal ship cargo terminals are located in this area as well. The primary proposed upland disposal area, Bartram Island, is located in the area. Principle habitats in the area are similar to those found nearer the mouth of the river with filled and man-altered sites increased greatly.

3.1. Near the southern end of the project, in the vicinity of the Arlington and Trout Rivers, north of the Mathews Bridge, the river is bordered by extensive

residential, commercial and industrial development, filled wetlands, altered uplands and a spoil island with only small remnant patches of salt marshes and mud flats.

3.2. Bartram Island. Bartram (Quarantine) Island appears on survey maps of the Jacksonville Harbor area as early as 1895 apparently as a result of dredged material placement. Placement of dredged material in subsequent years behind the Dames Point Training Wall further modified Bartram Island. As a result of its continued use for dredged material placement, Bartram Island has been heavily impacted. Some of the island's original vegetative cover remains, mainly in the form of fringing smooth cordgrass, along with black needle rush, glasswort, saltwort salt grass salt marsh bulrush, sea ox-eye, groundsel and marsh elder. Much of the island is typified, however, by early successional plants as a result of disposal activities. A shallow open-water impoundment created by disposal activities occupies the far western section of the island. The section east of the Dames Point Bridge also has several wet depressions supporting willow and wax myrtle. Grasses and other herbaceous vegetation occurs on the dike slopes. Other vegetation occurring sparsely on the island includes black cherry, sumac, southern red cedar, slash and longleaf pine, oaks and cabbage palm.

3.3. The mosaic of various successional species is of benefit to resident and migratory birds, including roosting herons and egrets. Although no wading bird rookeries were observed, a number of least terns were observed on bare sand within the large diked area east of the Dames Point Bridge, by U.S. Fish and Wildlife Service personnel during their June 1996 visit. However, more recent data indicates that this site may not be suitable for ground nesting species like least terns. A pre-construction bird survey was conducted to assess potential nesting activity in August 2001 prior to the proposed raising of the dikes at the disposal site. The bird monitor reported that the prevalence of raccoon tracks implies that this area would be subject to high depredation rates, and thus would be substandard nesting habitat for any ground-nesting bird. Also, the monitor stated that extensive invasive vegetation has limited ground-nesting opportunities. This finding coincides with earlier reports, i.e. the 1998 Migratory Bird Monitoring reports. The salt marsh and shallow water impoundment support fish, reptiles, including the diamond-back terrapin, many species of shore and wading birds, and marsh specialists such as the marsh wren and clapper rail.

With or without the proposed deepening of segment 3A between river miles 14.7 and 20, Bartram Island will continue to receive placement of dredge material not suitable for construction fill or beach placement in the existing confined disposal facilities on the east and west ends of the island. Authorization of the 40-foot project from the entrance channel to river mile 14.7 in the Water Resources Development Act (WRDA) of 1999 included raising the existing dikes of one segment of the confined disposal area on the east end of Bartram Island. The Jacksonville Port Authority (JPA) recently raised the dikes on the west confined disposal facility (CDF) 10 feet to an elevation of 28.5 feet in August 1999. That

modification provided an additional 6.5 million cubic yards of capacity for the upland confined disposal facility on the west end of Bartram Island.

3.4 The District Migratory Bird Protection Policy would continue to require bird monitoring when the disposal facility is used with or without the proposed deepening of segment 3A. Frequent use of Bartram Island for placement of dredge material and predators including raccoons indicate this area will not be subject to windows for bird nesting.

4.0. Environmental Impacts. Of the segments within the project's footprint, adjacent human activities have had the most significant impact on the western segment. Although physical changes in bottom substrate are likely to be greatest in this segment, the FWS has stated that the overall impacts would be less significant than in the other segments because of the probability of the western segment having lower biological diversity.

4.1. Bartram Island. Impacts resulting from use of Bartram Island for disposal of material from this portion of the project are expected to be minimal because of previous disposal activities in this area and the disturbed nature of the site.

4.2. Water Quality. A State Water Certificate would be obtained prior to construction and State water quality standards would be met during construction. The project would cause temporary increases in turbidity where dredging is taking place and at the beach disposal site. The State of Florida water quality regulations require that water quality standards not be violated during dredging operations. The standards state that turbidity outside the mixing zone shall not exceed 29 NTU's above background. Various protective measures and monitoring programs would be conducted during construction to ensure compliance with State water quality standards. Should turbidity exceed State water quality standards during construction as determined by monitoring, the contractor would be required to cease operations until conditions return to normal.

4.3 Salinity Changes. Salinity changes due to the proposed 40-foot project depth channel deepening received evaluation using hydrodynamic modeling. The model described in paragraph B.4. of Engineering Appendix A compared the present 38-foot project depth channel to the proposed 40-foot project depth channel. The hydrodynamic model indicated that deepening will have little or marginal effect on the salinity of the river. Also, the model indicates that the area with the most significant changes were found at Back River where the surface discharge was –0.79 ppt and the bottom difference was –1.00 ppt. Land use along this portion of the channel consists of industry and other commercial uses.

4.4. Hazardous, Toxic and Radioactive Wastes (HTRW). A HTRW survey of potential upland disposal sites found no signs of potential HTRW contamination. Recent surveys conducted from February 7 –12, 2000, for offshore placement of maintenance material indicated contaminated sediment in the river bottom along

the edge of the turn widener connecting Cut-55 to Terminal Channel. Contaminated sediment (PAH's) first appeared in a report dated March 21, 2000, provided by PPB Environmental Laboratories, Inc. for an evaluation of offshore disposal of maintenance material. The Jacksonville Port Authority and the Jacksonville Electric Authority plan to remove the contaminated sediment with or without a deepening project.

4.5. Cultural Resources. To determine if potentially significant historic properties are located in the project area, archival research and field investigations have been conducted for the proposed channel improvements and for dredged material disposal areas that may be constructed for this project. Archival research and a remote sensing survey have been conducted for proposed channel realignment and turning basin construction. The Chaseville Turn Widener contains one target and the Terminal Channel Turning Basin (not part of the preferred or selected plan) contains nine targets identified during the remote sensing survey generated magnetic and/or sonar characteristics that compare favorably with those associated with previously identified submerged historic properties (Tubby 1997). These targets may represent resources eligible for inclusion in the National Register of Historic Places. Consultation with the Florida SHPO (1998)(Project File No. 980852) recommended diver identification and evaluation of any targets that are in project areas. This additional identification and evaluation will occur during the next phase of the project planning. If any of the targets are determined eligible for listing on the National Register of Historic Places mitigation measures will be developed in consultation with the SHPO.

4.6. Several disposal alternatives have been reviewed and evaluated to determine if historic properties may be present in the area of impact, including the existing and primary disposal areas at Bartram Island. Rock and dredged material removed from the channel could be placed in an artificial reef site, along the Mile Point shoreline or the Ocean Dredged Material Disposal Site. The Jacksonville District determined that significant historic properties are not likely to be located on any of these existing disposal areas.

4.7. Reports resulting from upland and underwater archeological investigations have been prepared under contract to the Corps and have been coordinated with the SHPO, according to the guidelines established in 36 CFR Part 800 and Section 106 of the National Historic Preservation Act, as amended. The SHPO concurred with the Jacksonville District's determination that potentially significant historic properties will not be affected by the current authorized WRDA 1999 project plan.

4.8. The recommended plan includes advanced maintenance dredging of all channel segments. Each of these segments has been previously dredged and is not likely to contain significant historic properties.

4.9. Threatened and Endangered Species. The Corps and FWS have identified the manatee, bald eagle, piping plover, wood stork, red-cockaded woodpecker, Eastern indigo snake and loggerhead sea turtle as species under the jurisdiction of the FWS as possibly occurring in the project area. In addition, the Corps and NMFS have identified the finback, humpback, sei, sperm and right whales, green, hawksbill, Kemp's ridley, leatherback and loggerhead sea turtles, and shortnose sturgeon as possibly occurring in the project area. In addition, the NMFS has identified a marine seagrass, Johnson's seagrass, proposed for listing as threatened, as possibly occurring in the project area. In their Coordination Act Report dated 23 July 1997 (http://www.saj.usace.army.mil/pd/envdocs/JaxHbr/car.html) the FWS concluded that if the Corps follows the proposed measures listed by the FWS there would be no adverse impacts to listed species. If a hopper dredge is used, we would comply with the requirements of the Regional Biological Opinion (revised September 25, 1997) with respect to sea turtles and Right Whales. Standard manatee protection measures would be incorporated into project specifications. The proposed action will not affect species under the jurisdiction of the NMFS.

4.10 Air Quality. The short-term impacts from dredge emissions and other construction equipment associated with the project would not significantly impact air quality. No air quality permits would be required for this project. Duval County is designated as an attainment area for Federal air quality standards under the Clean Air Act. Because the project is located within an attainment area, EPA's General Conformity Rule to implement Section 176(c) of the Clean Air Act does not apply and a conformity determination is not required.

4.11. Recreation. Recreational activities on the river will not be adversely affected by construction activities. During dredging, the construction equipment will be located in one place and recreational boaters and fishermen can avoid the area during this time. As there is no recreational activity on Bartram Island, there will be no impacts.

4.12. Aesthetics. Consideration of visual resources within the project study area is required by the National Environmental Policy Act of 1969 (NEPA) PL 91-190, as amended. Aesthetic resources are defined in ER 1105-2-50 as "those natural and cultural features of the environment which elicit...a pleasurable response" in the observer, most notably from the predominant visual sense. Consequently, aesthetic resources are (commonly referred to as) visual resources, features which can potentially be seen. An assessment of the proposed project features follows.

4.13. The Jacksonville Port Authority has raised the containment dikes at Bartram Island approximately 10 feet in elevation above the existing height. Although these disposal sites will be used for material from the deepening project, the dike raising is proposed prior to that activity and they will be used for placement of maintenance material. The proposed dike elevation increase was constructed from the inside of the existing dikes. The raised dikes will remain the

same viewing distance from their surroundings. Although the raised dikes will be able to hold more dredged material the existing views of the island are not anticipated to change. The vegetative buffer at Bartram Island was not impacted by the dike construction. The existing aesthetic resources of the immediate vicinity are not anticipated to be adversely affected.

4.14. The presence of construction equipment on the river will be unsightly during the construction period. It will be removed upon completion of work and there will be no long-term or lasting impact.

4.15. The assessment was conducted in compliance with the National Environmental Policy Act of 1969, as amended, and in compliance with Corps guidance (ER 200-2-2: ER 1105-2-100).

5.0. Coordination. The following coordination was done for the Final E.I.S. dated September 1998 that included the current proposed project improvements. A Notice of Intent (NOI) to prepare a draft of this EIS appeared in the Federal Register on 5 May 1997. In addition, the NOI was mailed to interested and affected parties by letter dated 13 May 1997. A copy of the letter and NOI are in Appendix C to the September 1998 main report. A copy of the EIS is available on our web site at http://www.saj.usace.army.mil/pd/envdocs/envdocsb.htm. A copy of the USFWS Coordination Act Report (CAR) dated July 1997 is also available at http://www.saj.usace.army.mil/pd/envdocs/JaxHbr/car.html.

5.1. Public involvement in the proposed action was initiated with a scoping letter dated 24 August 1993. Coordination was initiated with the U.S. Fish and Wildlife Service(FWS) and the National Marine Fisheries Service (NMFS) under Section 7 of the Endangered Species Act on 24 August 1993 and 23 April 1996, respectively. The proposed action was coordinated with the FWS under the Fish and Wildlife Coordination Act on 19 October 1993 for the Reconnaissance Phase of the study and again for the Feasibility Phase of the study. The Final C.A.R. was received 30 November 1997 (copy in Appendix C of the Main Report). The Feasibility Report and Draft EIS was coordinated appropriated Federal, State, and local agencies and other interested parties, including the Fish and Wildlife Service, National Marine Fisheries Service. U.S. E.P.A., Florida State Clearinghouse and the State Historic Preservation Officer.

5.2. Coordination with the U.S.F.W.S by telephone in April 2000 indicates that the November 1997 C.A.R. adequately addressed the proposed navigation modifications and that a new C.A.R. would not be required. The U.S.F.W.S. coordination letter, dated June 1, 2000, confirmed that opinion (see Appendix C).

5.3. For the current General Reevaluation Report two additional scoping letters provided a request for reevaluation of 5.3 miles of the main channel from river miles 14.7 to 20. Public involvement continued with scoping letters dated September 8, 2000 and April 26, 2000. The September 8, 2000 letter requested

review of river miles 14.7 to about 18.0 or 3.3 miles of the main channel. The April 26, 2000, scoping letter extended the request for reevaluation from river mile 14.7 to 20, which received consideration in the September 1998 Final EIS for Jacksonville Harbor. Those scoping letters with responses are included in the coordination appendix C of the main report. The Florida Department of Environmental Protection (FDEP) in their October 20, 2000 letter noted that the Corps applied for a Joint Coastal Permit (DEP File No. 0129277-001-JC) to deepen sections of Jacksonville Harbor to -40 feet. FDEP amended and renewed that Corps maintenance-dredging permit. Florida Fish and Wildlife Conservation Commission in their October 30, 2000 letter evaluated not only river miles 14.7 to 20 of the current study area, but also included from the entrance channel to river mile 20 of Jacksonville Harbor. That letter stated that their comments for reevaluation of the proposed deepening to a depth of –40 of the entire 20-mile section of the harbor main channel consisted of the same comments as their Manatee Impact Review dated March 9, 2000 and the Marine Turtle Impact Assessment dated December 27, 1999. The Florida State Clearinghouse of the Department of Community Affairs letter dated October 30, 2000 noted the above comments and described the project, at this stage, as consistent with the Florida Coastal Management Program. The State's continued concurrence with the proposed project will be based, in part, on the adequate resolution of the issues identified during the current and future reviews. The Northeast Florida Regional Planning Council found the proposed project consistent with its policies, plan and program. The draft EA was coordinated with appropriate agencies, local industries, and environmental groups through a Notice of Availability dated July 9, 2002. Comments on the draft EA are included in Appendix C, Pertinent Correspondence.

5.4. Florida Fish and Wildlife Conservation Commission in their March 9, 2000, letter expressed concern over potential collisions of commercial ship traffic with North Atlantic right whales in offshore areas located within important calving and nursery areas for that endangered species (see Appendix C). In response to that concern, the economic analysis used primarily the existing fleet of vessels currently transiting Jacksonville Harbor. Transportation savings to those vessels would occur with deepening of the existing harbor, which allows the existing fleet to load deeper. As larger ships are introduced, those vessels would replace the existing fleet so the actual number of vessels would not increase over time. The vessel calls or transits through Jacksonville would decrease over time.

5.5. Florida Fish and Wildlife Conservation Commission in their February 21, 2001, letter expressed concern on the proposed manatee protection measures (see Appendix C). In response to this concern, no blasting would be performed for this project. It is also highly unlikely that a clamshell dredge would be used, and the cost analysis was performed using a hydraulic rock-cutter head dredge. However, if it became necessary to use a clamshell dredge a dedicated manatee observer would be required. The proposed action would comply with the

Biological Opinion of the U.S.F.W.S. pursuant to Section 7 of the Endangered Species Act.

5.6. By letters of May 17, 2000, and October 5, 2000, in response to prior coordination letters, the NMFS concurred that there would be no adverse effect to Essential Fish Habitat. The NMFS letter dated August 6, 2002, concluded that no long-term and/or significant adverse impacts to high quality aquatic habitats, including Essential Fish Habitat, are anticipated.

5.7. The draft EA was coordinated with appropriate agencies, local industries, environmental groups, and other entities by letter dated July 9, 2002. Comments on the draft EA are included in Appendix C.

6.0. Environmental Commitments.

In their 23 July 1997 Fish and Wildlife Coordination Act Report (http://www.saj.usace.army.mil/pd/envdocs/JaxHbr/car.html) the FWS listed several Reasonable and Prudent Measures to protect listed species. The U.S. Army Corps of Engineers and contractors commit to avoiding, minimizing or mitigating for adverse effects during construction activities by including those measures in the contract specifications. Except for whales and sea turtles, there are no listed species under the jurisdiction of the NMFS that would be affected by the project. If a hopper dredge is used, its operation would be subject to the requirements of the Regional Biological Opinion concerning these species (revision dated September 25, 1997) from the NMFS. Low-pressure sodium (LPS) lighting was recommended but not required as stated in correspondence form the FWS dated February 17 and March 10, 1998. It is highly unlikely that a clamshell dredge would be used for any portion of this project and the cost analysis was performed using hydraulic rock-cutter head dredge. However, if it became necessary to use a clamshell dredge a dedicated manatee observer would be required.

APPENDIX A
JACKSONVILLE HARBOR GRR
SECTION 404 (b) EVALUATION REPORT

APPENDIX A
SECTION 404(b) EVALUATION REPORT
JACKSONVILLE HARBOR GRR
DUVAL COUNTY, FLORIDA

I. Project Description.

a. Project Location. The site of the proposed work is Jacksonville Harbor, in Duval County, on the northeast coast of Florida.

General Project Description. At the present time the preferred plan is an extension of the previously authorized Plan from mile 14.7 to about mile 20. Project depths extend from an existing depth of 38 feet to a new 40-foot depth over the 5.3 mile segment. A turn widener is added at the Chaseville Turn. Placement of all dredged material from the deepening is planned for the West Bartram Island confined upland disposal area. Rock material could also go to the Mile Point shoreline or one of the proposed artificial reef sites located off of the mouth of the St. Johns River and identified in the earlier study. The ODMDS would only be used if the above sites cannot be used.

c. Authority and Purpose. The Jacksonville Harbor Deepening Study was authorized by a resolution from the Committee on Public Works and Transportation, U.S. House of Representatives, dates February 5, 1992, which states:

"Resolved by the Committee on Public Works and Transportation of the United States House of Representatives, that the Board of Engineers for Rivers and Harbors, is requested to review the report of the Chief of Engineers on Jacksonville Harbor, Florida, published as House Document 214, Eight-ninth Congress, First Session, and other pertinent reports, to determine whether modifications of the recommendations contained therein are advisable at the present time, in the interest of navigation and other purposes."

The primary planning objective of the study is to provide increased navigational safety and efficiency and improved economic conditions while minimizing adverse environmental impacts to the surrounding area.

d. General Description of Dredged or Fill Material.

(1). General Characteristics of Material. The material to be dredged this portion of Jacksonville Harbor consists of various combinations of sand, shell, silt, clay and rock.

(2). Quantity of Material. Approximately 1,533,000 cubic yards of material will be removed from the 5.3 mile segment along with 5000 cy from the S.T. Services berthing area, 43,000 from the U.S. Navy Fuel Depot 39,000 from the Chevron Oil Terminal, and 38,000 from J.P.A. Talleyrand berthing areas for a total estimated quantity of 1,658,000 cy. This plan does not require blasting.

II. Factual Determinations.

a. Physical Substrate Determinations.

(1). Sediment Type. Sediments throughout this project reach vary from sand, sand/shell, silt, clay, rock and combinations of the various types depending upon the location

(2). Dredge / Fill Material Movement. Material placed in diked upland disposal areas would not move.

(3). Physical Effect on Benthos. Benthos in the river channel would be lost in the vicinity of dredging activities; however, these organisms are adapted to living in a constantly changing environment and should recover rapidly.

b. Water Circulation, Fluctuation and Salinity Determination.

(1). Water Column Effects. Dredging activities would cause temporary elevated turbidity, but will be within State standards. This part of the project is also a high-energy area caused by strong currents and tidal action, and subject to elevated turbidity levels. Any elevated turbidity levels associated with project activities would not be significant, nor would the project have any adverse impacts on salinity, water chemistry, clarity, color, taste, dissolved gas levels, nutrients or eutrophication.

(2). Current Patterns and Circulation. Current patterns and circulation will be unaffected by the proposed work.

(3). Normal Water Level Fluctuations and Salinity Gradients. The proposed action would not affect normal tidal fluctuations or salinity.

c. Suspended Particulate/Turbidity Determinations.

(1). Expected Changes in Suspended Particulates and Turbidity Levels in the Vicinity of the Disposal Site. Project activities would cause temporary increases in turbidity levels where dredging occurs. Upland disposal sites would be so configured so that return water meets State standards.

(2) Effects on the Chemical and Physical Properties of the Water Column.

(a). Light Penetration. Turbidity at the dredging site would be short-term and temporary. Florida State water quality standards for turbidity outside an allowable mixing zone (29 NTU above background) would not be exceeded.

(b). Dissolved Oxygen. Dissolved oxygen levels would not be altered by project activities at the dredging site because of tidal, wave and current activities at these sites.

(c). Toxic Metals, Organic, and Pathogens If material placed in upland sites contains such materials it would be retained at these sites. Material placed in the Ocean Dredged

Material Disposal Site (ODMDS) would be tested to meet the requirements of ocean disposal.

(d). Aesthetics. Some temporary impact on water clarity could be expected. Visual aesthetics at the upland disposal site would be somewhat reduced.

(3). Effects on Biota.

(a). Primary Productivity. Primary productivity is a function, to some degree, in the river. Because of the short-term nature of dredging operations in any one location and currents and tidal movements in the river, no overall effect on primary productivity is expected.

(b). Suspension/Filter Feeders. It is not expected that a short-term, temporary increase in turbidity would have more than a minimal impact on these organisms.

(c). Sight Feeders. No significant impacts on sight feeders are expected as most are highly mobile and able to avoid areas of disturbance.

d. Contaminant Determinations. If material placed in upland sites contains such materials it would be retained at these sites. Material placed in the Ocean Dredged Material Disposal Site (ODMDS) would be tested to meet the requirements of ocean disposal.

e. Aquatic Ecosystem and Organism Determinations.

(1). Effects on Plankton. No adverse impacts on autotrophic or heterotrophic organisms are expected.

(2). Effects on Benthos. There would be mortality of benthic organisms at the dredging sites. Recolonization of these organisms is expected to occur in rapid fashion, particularly during warm months. No long-term impacts are expected.

(3). Effects on Nekton. No adverse impacts to nektonic species are expected.

(4). Effects on Aquatic Food Web. No long-term adverse impact to any tropic group or level in the food web is expected.

(5). Effects on Special Aquatic Sites. Special aquatic sites (wetlands or vegetated shallows) would be largely unaffected. No hardground or coral reef communities exist in the project area.

(6). Threatened and Endangered Species. Observers will be at the dredging site at all times to insure that listed species are not affected by the work.

(7). Other Wildlife. With the selected plan, very little impact on wildlife is expected.

(8). Actions to Minimize Impacts. All practical safeguards would be taken during construction to preserve and enhance environmental, aesthetic, recreational, cultural and historical, and economic values in the project area.

f. Proposed Disposal Site Determinations.

(1). Mixing Zone Determinations. Florida State water quality standards for turbidity (29 NTU above background) outside an allowable mixing zone would not be exceeded.

(2). Determination of Compliance with Applicable Water Quality Standards. Construction activities would be monitored to ensure that State Water Quality Standards are met at all times during construction and Class III water quality standards would not be exceeded.

(3) Potential Effects on Human Use Characteristics. Any impacts would be minimal.

(a). Municipal and Private Water Supplies. No municipal or private water supply systems would be impacted by construction of the project.

(b). Recreational and Commercial Fisheries. Recreational and/or commercial fisheries would not be affected by the project except in the immediate vicinity of construction activities. Any impacts would be temporary and short-term.

(c) Water-Related Recreation. Water-related recreational activities would not be affected by the project except in the immediate vicinity of construction activities. Any impacts would be temporary and short-lived.

(d). Aesthetics. The presence of construction equipment at various locations during construction would be aesthetically displeasing. Upon completion of construction activities and subsequent removal of the equipment the project area would revert to pre-project conditions.

(e). Parks, National and Historic Monuments, National Seashores, Wilderness Areas, Research Sites and Similar Preserves. No such sites will be affected by the proposed action.

g. Determination of Cumulative Effects on the Aquatic Ecosystem. There would be no cumulative impacts that result in a significant impairment of water quality of the existing ecosystem as a result of dredging or disposal activities.

h. Determination of Secondary Effects on the Aquatic Ecosystem. There would be no long-term secondary effects from dredging or disposal activities.

III. Findings of Compliance or Non-compliance with the Restrictions on Discharge.

a. No significant adaptations of the guidelines were made relative to this evaluation.

b. No practicable alternative exists which meets the study objectives that do not involve discharge of fill into waters of the United States.

c. After consideration of disposal site dilution and dispersion, the determination was made that the discharge of fill materials would not cause or contribute to, violations of any applicable State water quality standards for Class III waters. Discharge operations would not violate the Toxic Effluent Standards of Section 307 of the Clean Water Act.

d. Disposal operations would not jeopardize the continued existence of any species listed as Threatened or Endangered or result in the likelihood of destruction or adverse modification of any critical habitat as specified under the Endangered Species Act of 1973, as amended.

e. The placement of dredged material would not result in significant adverse impacts to human health and welfare, including municipal and/or private water supplies, recreational and commercial fisheries, plankton, fish, shellfish, wildlife and special aquatic sites. The life stages of aquatic and other wildlife species would not be adversely affected. Significant adverse impacts to aquatic ecosystem diversity, productivity and stability, and recreational, aesthetic and economic values would not occur.

f. On the basis of these guidelines, the proposed actions are specified as complying with the requirements of the guidelines.

APPENDIX B
JACKSONVILLE HARBOR GRR
FLORIDA COASTAL ZONE CONSISTENCY PROGRAM
FEDERAL CONSISTENCY EVALUATION PROCEDURE

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1. Chapter 161, Beach and Shore Preservation : The intent of the coastal construction permit program established by this chapter is to regulate construction projects located seaward of the line of mean high water and which might have an effect on natural shoreline processes.

Consistency Statement: The purpose of the proposed action is to improve the navigation channel at Jacksonville Harbor, Florida. It is intended to deepen and slightly narrow the navigation channel, resulting in transportation savings for deep draft commercial ships in the process. Information would be submitted to the State in compliance with this chapter.

2. Chapters 186 and 187, State and Regional Planning : These chapters establish the State Comprehensive Plan which sets goals that articulate a strategic vision of the State's future. It's purpose is to define in a broad sense, goals and policies that provide decision-makers with directions for the future and long-range guidance for orderly social, economic and physical growth.

Consistency Statement: The work has been coordinated with the State without objection.

3. Chapter 252, Disaster Preparation, Response and Mitigation: This chapter creates a State Emergency Management Agency, with authority to provide for the common defense; to protect the public peace, health and safety; and to protect the lives and property of the people of Florida.

Consistency Statement: Deepening of the navigation channel would enhance the safety of deep draft commercial ships. Therefore, this work would be consistent with the efforts of the Division of Emergency Management.

4. Chapter 253, State Lands: This chapter governs the management of submerged State lands and resources within State lands. This includes archeological and historic resources, water resources, fish and wildlife resources, beaches and dunes, submerged grass beds and other benthic communities, swamps, marshes and other wetlands, mineral resources, unique natural features, submerged lands, spoil islands and artificial reefs.

Consistency Statement: Channel deepening, maintenance dredging, shoreline stabilization, jetty construction, and use of local disposal areas have been previously performed. The use of these State lands has previously approved by the State. The proposed activity has been coordinated with the State and appropriate State permits would be obtained prior to construction. The proposed action would comply with the intent of this chapter.

5. Chapters 253, 259, 260 and 375, Land Acquisition: This chapter authorizes the State to acquire land and protect environmentally sensitive areas.

Consistency Statement: As the property is already in public ownership, these chapters do not apply.

6. Chapter 258, State Parks and Aquatic Preserves: This chapter authorizes the State to manage State parks and preserves. Consistency with this chapter would include consideration of projects that would directly or indirectly adversely impact park property, natural resources, park programs or management operations.

Consistency Statement: All reasonable and prudent measures would be taken to ensure that the proposed action does not adversely impact State Parks or aquatic preserves, and would be consistent with the intent of this chapter.

7. Chapter 267, Historic Preservation: This chapter establishes the procedures for implementing the Florida Historic Resources Act responsibilities.

Consistency Statement: Archival research and field investigations have been completed for channel deepening, realignment, and for development of new disposal areas. The project has been analyzed to determine possible effects on historic properties and coordinated with the State Historic Preservation Officer (SHPO) to ensure that the proposed work would be consistent with the goals of this chapter.

8. Chapter 288, Economic Development and Tourism: This chapter directs the State to provide guidance and promotion of beneficial development through the encouragement of economic diversification and promotion of tourism.

Consistency Statement: Deepening and stabilization of the Jacksonville Harbor navigation channel would provide increased safety, efficiency and lower costs for navigation, while protecting the environment. Existing port facilities are not easily accessible to some larger vessels because of depth limitations in parts of the channel, and other large ships can only use the channel if they are "light-loaded", also because of depth limitations. In addition, local interests and harbor, pilots have requested consideration of channel wideners at certain locations where passing or turning is required, to improve vessel handling and maneuvering and to ensure safety of navigation while in the harbor. Implementation of these items would all enhance the economic viability of the port.

9. Chapters 334 and 339, Public Transportation: This chapter authorizes the planning and development of a safe and efficient public transportation system.

Consistency Statement: The proposed action would not adversely affect public transportation.

10. Chapter 370, Living Saltwater Resources: This chapter directs the State to preserve, manage and protect the marine, crustacean, shell and anadromous fishery resources in State waters; to protect and enhance the marine and estuarine environment; to regulate fishermen and vessels of the State engaged in the taking of such resources within or outside of State waters; to issue licenses for the taking and processing of fisheries products; to secure and maintain statistical

records of the catch of each such species; and to conduct scientific, economic and other studies and research.

Consistency Statement: Navigation channel deepening and widening, and shoreline stabilization would not adversely affect such activities and is consistent with the goals of this chapter.

11. Chapter 372, Living Land and Freshwater Resources: This chapter establishes the Game and Freshwater Fish Commission and directs it to manage freshwater aquatic life and wild animal life and their habitat to perpetuate a diversity of species with densities and distributions which provide sustained ecological, recreational, scientific, educational, aesthetic and economic benefits.

Consistency Statement: The only upland habitat that would be affected due to construction activities would be existing upland disposal sites that have previously been used. Therefore, the proposed action will comply with the goals of this chapter.

12. Chapter 373, Water Resources: This chapter provides the authority to regulate the withdrawal, diversion, storage and consumption of water.

Consistency Statement: This work does not involve water resources as described in this chapter.

13. Chapter 376, Pollutant Spill Prevention and Control: This chapter regulates the transfer, storage, and transportation of pollutants and the cleanup of pollutant discharges.

Consistency Statement: This work does not involve the transportation or discharge of pollutants. Conditions would be placed in the contract for the handling of inadvertent spills of pollutants such as vehicle fuels. The proposed action would comply with this chapter.

14. Chapter 377, Oil and Gas Exploration and Production: This chapter authorizes the regulation of all phases of exploration, drilling and production of oil, gas and other petroleum products.

Consistency Statement: The proposed action does not involve the exploration, drilling or production of oil, gas or other petroleum products and this chapter, therefore, does not apply.

15. Chapter 380, Environmental Land and Water Management: This chapter establishes criteria and procedures to assure that local land development decisions consider the regional impact of large scale development.

Consistency Statement: The proposed action has been coordinated with the local regional planning council. The work would conform to the goals of this chapter.

16. Chapter 388, Arthropod Control: This chapter provides for a comprehensive approach for abatement and/or suppression of mosquitoes and other arthropod pests within the state.

Consistency Statement: The proposed action would be consistent with the goals of this chapter.

17. Chapter 403, Environmental Control: This chapter authorizes the regulation of pollution of the air and waters by the State by the Department of Environmental Protection.

Consistency Statement: Appropriate State permits would be obtained for the project which would be consistent with the goals of this chapter.

18. Chapter 582, Soil and Water Conservation: This chapter establishes policy for the conservation of State soils and water through the Department of Agriculture. Land use policies would be evaluated in terms of their tendency to cause or contribute to soil erosion or to conserve, develop and utilize soil and water resources both on-site and on adjoining properties affected by the work. Particular attention would be given to work on or near agricultural lands.

Consistency Statement: The proposed work is not being done near agricultural lands; therefore, this chapter does not apply.